

Changing the Mountain and Cold Weather Training Paradigm

Stephan, Scott E.

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>2006</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2006 to 00-00-2006</b>	
4. TITLE AND SUBTITLE <b>Changing the Mountain and Cold Weather Training Paradigm</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>United States Marine Corps, Command and Staff College, Marine Corps Combat Development, Marine Corps University, 2076 South Street, Quantico, VA, 22134-5068</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>14</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

Nearly 2/3 of the future expeditionary environments have severely restricted terrain in the littoral penetration area. Most of these restrictions are due to highly compartmented rugged coastal mountain chains.<sup>1</sup>

Commanders at all levels are responsible for the training and performance of their units.<sup>2</sup>

The Marine Corps Mountain Warfare Training Center (MCMWTC) has been in operation for over 50 years, but the Marine Corps still lacks a coherent program to train and equip Marines for operations in mountainous and cold weather (MCW) environments. Moreover, no unifying training program exists for employing a Marine Air Ground Task Force (MAGTF) in such environments. In light of these circumstances and the likelihood for future MCW operations, the Marine Corps must reevaluate the way that it conducts MCW training. To take full advantage of the MCMWTC in preparing units for deployment to MCW environments, commanders must approach the center as a venue to conduct training rather than a place to be trained.

### **Deficiencies in "Traditional" MCW Training**

The deficiencies in the current approach to MCW training can be divided into the general categories of

---

<sup>1</sup> Harry Frank, "Marine Corps Mid-Range Threat Assessment 2001-2010: Full Spectrum Chaos: No-tech, Low Tech, and High Tech Conflict at the Millennium and Beyond," MCIA 1586-001A-01, August 2001: 24, quoted in Clifton Carpenter, "USMC Capability: Mountain/Cold Weather Operations," Master of Arts in National Security Affairs, Naval Postgraduate School, 2003, 1.

<sup>2</sup> Marine Corps Reference Order 3-0 A/B, Unit Training Management Guide, November 1996, 2.

failing to identify operational requirements, training the elements of the MAGTF independently, failing to train all of the warfighting functions, and utilizing the MCMWTC ineffectively. The first and most foundational issue is that the Marine Corps has not defined the required capabilities for units operating in MCW environments. Without defined capability sets commanders develop widely varied mission essential tasks (METs) and pre-deployment training programs (PTP).<sup>3</sup> This is exacerbated by the Marine Corps' lack of current experience operating in MCW environments.<sup>4</sup> The resulting training programs can be inefficient or even ineffective.

The second deficiency is training the elements of the MAGTF independently. Marines fight as a MAGTF; however, training at MCMWTC rarely involves more than the maneuver components of the GCE.<sup>5</sup> The effects of mountainous terrain and cold weather on operations are not limited to the infantry, however. Routine maintenance of aircraft, the operation of MTVRs on unpaved winding roads, and

---

<sup>3</sup> The term pre-deployment training program (PTP) is used here to refer to pre-deployment training conducted by a unit commander, vice a set of requirements generated and promulgated by a higher headquarters.

<sup>4</sup> Although 3<sup>rd</sup> Marine Regiment gained valuable experience operating in Afghanistan in the wake of Operation Anaconda, that experience has not been developed into a Corps wide capability. Furthermore, the Marine Corps has lost the opportunity to develop the regiment's MCW operational experience because too much time has elapsed.

<sup>5</sup> Marine Corps Mountain Warfare Training Center, Training Exercise Employment Program 2006-2007, MCMWTC Operations Section.

communications will all be severely affected by the environment.

Third, MCW training programs typically fail to realistically address all of the warfighting functions. For example, it is common for an infantry battalion training at MCMWTC to conduct dismounted patrols, but it is uncommon for the unit to conduct the intelligence, logistics, C2, force protection, and fire support functions to support maneuver.

This shortfall is most commonly seen in logistics support for operations.<sup>6</sup> Failing to realistically sustain and transport troops in training produces two problems. First, it prevents units from training to employ the vehicles they will deploy with in MCW environments. Second, it inhibits the development of techniques and procedures to employ standard Marine Corps assets in these environments. The end result is that units deploying to MCW environments are unprepared, and possibly incapable, of supporting sustained operations.

---

<sup>6</sup> MCW environments will have significant adverse affects on ground mobility. In training, however, most units fail to realistically address the issue. Rather than identifying and working around the limitations posed by the environment on operations, units commonly "fairy dust" the majority of logistics functions. Training units commonly rely of the MCMWTCs limited vehicle pool of SUSVs and non-tactical "white" vehicles to meet requirements.

Finally, the MCMWTC staff and resources have generally been utilized ineffectively in the recent past. A common misconception is that the MCMWTC staff is capable of conducting a Mojave Viper style pre-deployment training program for units. Although the training center staff is the Marine Corps' duty experts on MCW operations, two points must be considered.

First, the training center is limited in its ability to generate mission specific training programs. Unfamiliar with the deploying unit's commander's intent, METs, and PTP, training programs generated by MCMWTC have traditionally focused on environmental skills and lacked the overarching framework to tie those skills into mission based training.

Second, MCMWTC is not staffed or equipped to provide CAX or Mojave Viper style training. Additionally, the training cadre is composed almost entirely of Marines from the infantry community.<sup>7</sup> Considering the complexity and diversity of military occupational specialties in a MAGTF, this imposes obvious limitations on the training center's ability to instruct MOS related TTPs. Both examples

---

<sup>7</sup> MCMWTC TO&E, updated 2006. The TO is cited to highlight shortfalls in instructors from outside the GCE. The shortage of instructors is particularly acute for the LCE. While MCMWTC does conduct the logistics functions necessary to support base operations, the support sections are not staffed or organized to conduct training operations.

support the idea that, while the MCMWTC staff can teach Marines the techniques and procedures to overcome the environment, only commanders can develop and execute training that meets the particular needs of their unit.

As a result of these deficiencies the value added by the "traditional" training programs conducted at MCMWTC has been unclear. After action reports from training units indicate that while commanders value the experience of training for MCW, they are often unable to directly correlate the experience to their pre-deployment training program (PTP) or anticipated mission requirements.<sup>8</sup> Given the short dwell/training cycles for most Marine Corps units, leaders must seek to tie the training more concretely into PTPs in order to justify spending their unit's time and resources.

### **Changing the MCW Training Paradigm**

To fulfill the potential of the training opportunity, the MWTC deployment must be integrated into the overall unit training management philosophy... We have a lot of flexibility in how to design training. Although there is a need for some standardized environmental training up front, the remainder of the training can be responsive to the needs of the unit, their planned attachments, and support elements.<sup>9</sup>

---

<sup>8</sup> This statement represents the author's opinion after participating in post training "hot washes" and compiling AAR's from summer and winter training packages while serving on staff at the MCMWTC.

<sup>9</sup> Robert Strahan, "What Good is the Marine Corps Mountain Warfare Training Center?," Marine Corps Gazette, March 2001, pg 64, 4 pages, <http://web.ebscohost.com>.

The quotation from a former MCMWTC commanding officer alludes to a fundamental change in the focus of training at MCMWTC. From 2004 to 2007 MCMWTC drafted a MCW training and readiness manual (T&R manual) and three programs of instruction (POIs) to standardize unit training for MCW operations.<sup>10</sup> The result is a program that focuses on teaching Marines the basic skills required to operate in the environment as quickly as possible, so that the majority of training can be focused on the PTP requirements of the training unit.<sup>11</sup>

In the final stage of training commanders have the opportunity to develop training plans that apply the environmental skills to their unit's anticipated missions. Simply attending the required pre-deployment planning conferences will not produce a solid training program, however. Commanders must formulate and clearly define how their deployment to MCMWTC fits into the unit's overall

---

<sup>10</sup> These POIs are in draft form and are under review by Training and Education Command.

<sup>11</sup> A standard battalion training package now consists of two to three days of environmental training, five to seven days of basic mobility (non-technical, i.e. no skis or ropes), with the remainder of the deployment focused on unit directed training. Technical mountaineering training is still available to units that desire it through the Advanced Mobility POI. This course, which lasts approximately seven to ten days, trains units in basic obstacle negotiation techniques (summer courses) and over the snow mobility techniques (winter courses). While there is no "standard" deployment length to MCMWTC, the training center typically plans for a one month training cycle. In this context, the required phase I and II training constitutes roughly one third of the available training time. Two thirds of the deployment period can be tailored to meet the needs of the training unit.



PTP. With this information they can engage the MCMWTC staff to find ways to accomplish their training goals.

While this training construct does not entirely address the lack of defined operational requirements, it does provide a structure that enables commanders to address their requirements more effectively. There are obvious environmental and logistical obstacles to be overcome, but it can be done; units have successfully conducted training ranging from runway repair to CAS control.

#### **Training the MAGTF**

Assembling and deploying a full MAGTF for a training deployment is a monumental task, and even more so in a remote location like the MCMWTC. As a result most MCW training conducted since the year 2000 has focused on the GCE alone. Beyond the obvious interoperability shortfalls created from isolated training, there are more basic training issues that must be addressed.

The harsh weather and altitude of MCW environments will make routine operations problematic. Vehicle maintenance, refueling, and medical services will be significantly more difficult and often the solutions can only be learned by experience. Moreover, only the Marines of a particular occupational specialty possess the requisite experience to identify problems in their

respective fields. Considering the unique challenges to support operations, it is all the more important for combat support units to be integrated into MCW training.

The ideal solution would be to coordinate MAGTF MCW training and deployment in a manner similar to what is currently taking place at Mojave Viper. Given the current training cycle and availability of resources this is unlikely to happen, however. One alternative is for commanders to informally coordinate their deployments to MCMWTC with other units. While this will be difficult to accomplish on a large scale (multiple battalion sized elements), it should be possible for a base unit (battalion) to coordinate a training deployment with its supporting attachments (platoons, squads, or detachments).

A second approach is to bring representatives from other elements of the MAGTF to simulate their unit's function. This structure has been employed successfully by MAWTS-1 at Weapons and Tactics Instructor Course.<sup>12</sup> While neither recommendation provides a comprehensive solution for training a MAGTF, both offer an opportunity for units

---

<sup>12</sup> WTI uses representatives from the CE, LCE, and GCE to perform critical functions that enable the execution of air missions. In addition to a small staff from each element, each WTI class is augmented by student planners from across the MAGTF. This construct enables the focal unit, the ACE, to conduct realistic planning and execution while providing concurrent training for the student planners.

to more realistically address the environmental challenges to combat and support operations.

### **Training the Warfighting Functions**

Training infantry battalions to negotiate rocky terrain with ropes is important at the tactical level but fails to answer basic battalion-size mobility questions... The USMC does not train to support ground operations with organic equipment nor does it maintain specialized equipment to support a force in the snow.<sup>13</sup>

MCW environments will affect the execution of all the warfighting functions. Training units tend to focus on their primary tasks alone, however. To correct this deficiency, commanders must exercise all of the internal functions of their unit by employing all of the assets at their disposal during training.

The logistics function is discussed here as a representative of the other functions. As noted previously, logistical operations will be one of the most significant challenges that training units face in MCW environments, but are often neglected during training. This problem stems partially from the absence of an exercise allowance pool of tactical vehicles at MCMWTC and partially from training programs that are detached from the

---

<sup>13</sup> Clifton B. Carpenter, "USMC Capability: Mountain/Cold Weather Operations," (Master of Military Studies, US Marine Corps Command and Staff College, 2005), 16-17, <http://web.ebscohost.com>.

larger framework of pre-deployment training.<sup>14</sup> While the need exists for a long term solution to the shortage of exercise equipment at MCMWTC, in the short term there are two viable approaches to work around this problem. The first is to deploy tactical vehicles with the unit. The second is to plan to conduct operations without vehicles. Both recommendations are obviously easier said than done.

In the first option, the problems associated with moving tactical vehicles cross-country will almost certainly make this impossible for units based on the East coast. It should be noted, however, that this technique has been executed with success and is within the realm of possibility for units deploying from Camp Pendleton or 29 Palms. The second option will require creativity on the part of commanders and logisticians, but has also been conducted successfully by employing alternate transportation such as pack animals, helicopter lift, and old fashioned man power.

---

<sup>14</sup> The MCMWTC TO&E does not contain any tactical vehicles to support the staff or training units. All support comes from "white vehicles," provided by Southwest Regional Fleet Transportation (SWRFT), or MCMWTC's pool of Small Unit Sustainment Vehicles (SUSV). Originally acquired to support operations in Norway, the SUSV provides significant ground mobility capability in MCW environments. For a variety of prioritization issues, however, the SUSV will not be a viable option for deploying units in the foreseeable future. In the past, recommendations have been forwarded to establish an equipment allowance pool (EAP) at MCMWTC to support training units in the same manner as the EAP at Mojave Viper. While this would arguably be the best long term solution, prioritization issues once again make this unsupportable in the foreseeable future.

Although the problems associated with ground mobility and logistics will be challenging for training units, they are also amongst the most important. Conducting realistic logistical operations is a step towards effective training for the entire unit and to gaining an appreciation of the environmental effects. Failing to thoroughly consider and realistically address this challenge is a missed opportunity and a likely show-stopper during execution.

### **Conclusion**

Only a commander, who possesses a thorough understanding of the tasks his unit faces will be able to construct a training program that addresses those needs. The MCMWTC staff can provide the technical expertise required to survive the environment, but only the commander can prepare his unit for MCW operations by conducting mission specific training in realistic conditions. Identifying and overcoming the challenges to MCW training is only the first step in overcoming the enemy. Recognizing the likelihood of future conflict in MCW environments, commanders must develop creative solutions to train the MAGTF for MCW operations within current constraints.

**Word Count: 1,809**

## Bibliography

- Acosta, Marcus P. "High Altitude Warfare: The Kargil Conflict and the Future." Master of Arts in National Security Affairs, Naval Postgraduate School, 2003, <http://web.ebscohost.com>.
- Carpenter, Clifton B. "USMC Capability: Mountain/Cold Weather Operations." Master of Military Studies, US Marine Corps Command and Staff College, 2005, <http://web.ebscohost.com>.
- Darack, Ed. "From Bridgeport to Blessing," Marine Corps Gazette, Vol.90, No.8, August 2006: 54-57.
- Darby, M.J. "Out of their Element," All Hands, Issue 1045, May 2004: 32-39.
- FM 3-97.6 Mountain Operations, November 2000
- FM 3-97.61 Military Mountaineering, August 2002
- Frank, Harry. "Marine Corps Mid-Range Threat Assessment 2001-2010: Full Spectrum Chaos: No-tech, Low Tech, and High Tech Conflict at the Millennium and Beyond," MCIA 1586-001A-01, August 2001: 24. Quoted in Clifton Carpenter, "USMC Capability: Mountain/Cold Weather Operations," Master of Arts in National Security Affairs, Naval Postgraduate School, 2003.
- Malik, Muhammad A. "Mountain Warfare: The Need for Specialist Training." Master of Military Art and Science, US Army Command and General Staff College, 2003.
- Marine Corps Mountain Warfare Training Center, Table of Organization and Equipment, MCMWTC Administrative Section, 2007.
- Marine Corps Mountain Warfare Training Center, Training Exercise Employment Program 2006-2007, MCMWTC Operations Section.
- Marine Corps Mountain Warfare Training Center, Unit Operations Course Training After Action Reports 2005-2007, MCMWTC Academics Section.

MCO 1553.3A Unit Training Management, January 2004.

MCRO 3-0A/B Unit Training Management Guide, November 1996

Mountain Cold Weather Operations Training and Readiness  
Manual, NAVMC Directive 3500.108, July 2006

Robinson, Linda., Mark Mazetti, and Aamir Latif. "The Hunt  
for Bin Laden," U.S. News and World Report, Vol.136,  
Issue 16, May 2004, 30.

Sokol, Blair J. "Combined Arms Training: Live Fire During  
Exercise Mojave Viper," Marine Corps Gazette, Vol.91,  
No.12, December 2007: 32-34.

Strahan, Robert. "What Good is the Marine Corps  
Mountain Warfare Training Center?," Marine Corps  
Gazette, Vol.85, No. 3, March 2001: pg 64, 4 pages,  
<http://web.ebscohost.com>.